



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

September 27, 1994

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: Regulatory Interpretation Request:
Clarification of "Corrosion Expert" and "Cathodic
Protection Tester"

FROM: Lisa Lund, Acting Director /s/
Office of Underground Storage Tanks

TO: State UST Managers
UST/LUST Regional Program Managers
UST/LUST Regional Counsels

This memorandum has been prepared in response to requests we have received to offer further guidance on the qualifications of "Corrosion Expert" and "Cathodic Protection Tester" as they are set forth in 40 CFR §280.12. As the 1998 deadline approaches, State and Regional staff have become increasingly concerned that underqualified persons may be taking part in the installation and testing of cathodic protection equipment for underground storage tanks (USTs). This concern has recently been echoed by NACE International (appended without attachment), a nationally recognized organization that specializes in corrosion control.

A Corrosion Expert, as defined in the regulations, must demonstrate the education and training needed to qualify in the practice of corrosion control on buried metal piping systems and tanks. Proof of qualification under 40 CFR §280.12 can take one of two forms: (1) a person must be a registered professional engineer with certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and tanks, or (2) "a person must be accredited or certified as being qualified by the National Association of Corrosion Engineers" [now known as NACE International].

There has been some confusion associated with the latter. Regulators and the regulated community are generally unfamiliar with which NACE certification levels are appropriate and adequate for work related to USTs. NACE International has responded by providing clarification. NACE recognizes only persons certified as

either *Corrosion Specialists* or *Cathodic Protection Specialists* as being qualified on the basis of training and work experience to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. The attached table highlights the areas of expertise, education, and training commanded by each level of NACE certification. Any person who is certified as either fulfills the regulatory requirements for Corrosion Expert. Verification of the certification level of any individual can be obtained from NACE International.

Unlike Corrosion Expert, being a professional engineer or holding NACE certification is not a requirement under the regulations for a Cathodic Protection Tester. There are several levels of NACE certification, however, that meet the minimum requirements for Cathodic Protection Tester education and experience set out in 40 CFR §280.12. Specifically, any person who has been NACE certified as a *Senior Corrosion Technologist* or *Corrosion Technologist* is recognized by OUST as demonstrating an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. In addition, a person who has been NACE certified as a *Corrosion Technician* can serve as a Cathodic Protection Tester, with the stipulation that the technician perform system testing under the direct oversight of a Corrosion Specialist, Cathodic Protection Specialist, Senior Corrosion Technologist, or Corrosion Technologist, as required by NACE. The three NACE certification levels are detailed in the accompanying table.

As always, states are at liberty to impose requirements more stringent than the federal regulations. Owners and operators of UST facilities and members of the contracting community should confer with their state UST program offices to determine whether there are any differences between the state and federal regulations.

If you have any questions on this issue, please contact Bill Faggart of my staff at (703) 308-8897. For information on NACE International 's accreditation programs, please contact NACE International at (713) 492-0535.

Attachments (2)

cc: Kevin C. Garrity, NACE International
Shelley Nadel, NACE International
UST/LUST Regional Branch Chiefs
OUST Management Team
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CERTIFICATION LEVELS FOR UST CORROSION PROTECTION

<i>EPA Definition (40 CFR §280.12)</i>	<i>NACE Certification</i>	<i>Expertise/qualifications in corrosion control of USTs</i>
CORROSION EXPERT (NACE certification is <i>required</i> unless person is a registered PE with certification or licensing in corrosion control of buried metal pipes and tanks.)	Corrosion Specialist	<ul style="list-style-type: none"> • Cathodic protection (includes all areas of expertise under Cathodic Protection Specialist) • Coatings and linings • Metallurgy • Plastics (non-metallic materials) • Inhibitors (environmental treatment) • Corrosion assessment • Stray current or cathodic interference testing and analysis • Corrosion site surveys • Corrosion control designs and recommendations • Work/education experience is the same as for Cathodic Protection Specialist plus a Specialty Area Certification.
	Cathodic Protection Specialist	<ul style="list-style-type: none"> • System design and specifications • Installation supervision • System testing/commissioning • Stray current/cathodic interference testing and analysis • System maintenance • Cathodic protection assessment • Cathodic protection recommendations • Analysis of cathodic protection feasibility • Cathodic protection installation permits/licenses • Eight years corrosion work experience, including four years in responsible charge plus Senior Corrosion Technologist Exam —or— • Four years corrosion work experience in responsible charge plus one of the following: <ul style="list-style-type: none"> • Engineer-in-Training (EIT) registration or equivalent. • Professional Engineer (PE or P. Eng) or equivalent registration. • Bachelor's degree in Engineering or Physical Sciences plus a Ph.D. in Engineering or Physical Sciences that required a qualifications exam.

(continued)

<i>EPA Definition (40 CFR §280.12)</i>	<i>NACE Certification</i>	<i>Expertise/qualifications in corrosion control of USTs</i>
CATHODIC PROTECTION TESTER (NACE certification is <i>not</i> required; however, persons holding these NACE certification levels are viewed by OUST as fully meeting regulatory requirements.)	Senior Corrosion Technologist	<ul style="list-style-type: none"> • Installation supervision • System testing and commissioning • System maintenance • Evaluation of system performance • Eight years corrosion work experience, including four years in responsible charge, –or– Bachelor’s degree in Physical Sciences or Engineering plus four years corrosion work experience in responsible charge.
	Corrosion Technologist	<ul style="list-style-type: none"> • Installation supervision • System testing • System maintenance • Installation work • Routine inspections • Preliminary data analysis • Minimum of four years corrosion work experience
	Corrosion Technician *	<ul style="list-style-type: none"> • Routine system testing • System maintenance • Routine inspections • Installation work • Minimum of two years corrosion work experience

*NACE requires that a *Corrosion Technician* performing as a CATHODIC PROTECTION TESTER must be directly supervised by a *Corrosion Technologist*, *Senior Corrosion Technologist*, *Cathodic Protection Specialist*, or *Corrosion Specialist*.

Note: NACE International Certification requires a combination of fulfillment of formal education and work experience requirements as well as successfully passing a certification examination pertinent to the category of certification. All applicants must provide documented proof of acceptable work experience in the field of corrosion causes and mechanisms.